

REMARKS

Summary

By this Amendment, Claims 30-35 have been added for the Examiner's consideration, and no other claims have been added to or deleted from the application.

Accordingly, Claims 1-23 and 25-35 are now pending in the application.

35 U.S.C. ¶102 and ¶103

Claims 1-23 and 25-28 were rejected under 35 U.S.C. ¶103 as being unpatentable over Tsukune et al. (EP 0519079) for the reasons stated at pages 2-4 of the Office Action. Applicants respectfully traverse this rejection and request reconsideration thereof.

Initially, the Examiner's attention is directed to page 1 of the present specification where it is stated that according to prior methods "*organic-containing silicon precursors have been processed or further processed in such a way as to avoid or subsequently remove organic components from the as-deposited film; this is, for example, disclosed in US 5314724.*"

The EP 0519079 reference (Tsukune et al.) relied on by the Examiner and the noted US 5314724 are counterparts of one another and were derived from the same International Application No. PCT/JP91/01739.

As such, at least one distinction between the present invention and Tsukune et al. resides in the following limitations of Claim 1, 13 and 26:

“setting the film such that carbon-containing groups are contained therein.” (Claims 1 and 13)

means for setting the film such that carbon-containing groups are contained therein.” (Claims 1 and 13)

In contrast, Tsukune et al. is directed to a process in which “undesirable” organic groups are removed from a relatively fluid film prior or during any setting of the film. In particular, the Examiner’s attention is directed to FIG. 5B of Tsukune et al., and the following passages appearing at page 6 of thereof:

“... in the present invention, a filmy gel comprising a low-molecular weight polymer containing organic groups is deposited on the substrate. The filmy gel has fluidity, and the film can be leveled... . Thereafter, an undesirable organic group is removed from the leveled film.”

“... after the organic-group-containing silicon oxide film is deposited, the formed film may be heat-treated to remove the organic groups, thereby causing

*the organic-group-containing silicon oxide film to be
converted to a silicon oxide film."*

The Examiner has made reference to page 8, lines 25-55, of Tsukune et al. at teaching the reaction of an organosilane and a gas containing H and OH. Again, however, Tsukune et al. clearly teaches the removal of any organic groups. See, for example, page 9, lines 47-48, and page 10, lines 34- 52, of Tsukune et al.

The Examiner has further made reference to page 11, lines 32-36, of Tsukune et al. and to the hydrogen plasma treatment discussed at page 10, lines 35-40. However, the cited passage of page 11 simply describes the organic-group-containing silicon oxide as it exists in a fluid film state on the substrate, and the cited passage of page 10 describes how plasma treatment may be used to remove the organic groups from the thin film.

Finally, the Examiner references page 11, lines 35-55, and page 13, example 1, of Tsukune et al. However, these passages are directed to explaining the effects of temperature and pressure conditions on the fluidity of the organic-group-containing silicon oxide film, prior to removal of the organic groups therefrom.

Unlike the present invention, Tsukune et al. does not teach setting of the deposited film such that carbon-containing groups are contained therein. Rather, the carbon groups of Tsukune et al. are removed to form a silicon oxide film.

For *at least* the reasons stated above, Applicants respectfully contend that original Claims 1-23 and 25-28, and new Claims 30-35, are not rendered obvious by the teachings of the cited Tsukune et al. reference.

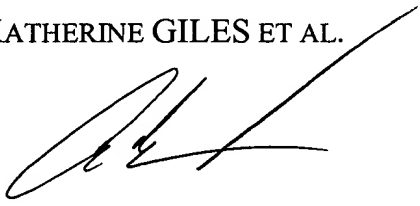
Conclusion

No other issues remaining, reconsideration and favorable action upon the Claims 1-23 and 25-35 now-pending in the application are requested.

Respectfully submitted,

KATHERINE GILES ET AL.

By:


Adam C. Volentine
Reg. No. 33,289

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VOLENTINE FRANCOS, PLLC
12200 Sunrise Valley Drive, Suite 150
Reston, VA 20191
(703) 715-0870